

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Previously presented): A microprobe for testing an electronic device, comprising:

a silicon substrate having an etched side and a second side being opposite said etched side, said etched side being etched a depth, said second side having a hole;

a conductive layer filling said hole;

a cantilever conductive spring unit electrically connected to said conductive layer, wherein said cantilever conductive spring unit having a first edge portion that is supported on a surface adjacent to said hole and a remainder of said cantilever conductive spring unit is spaced from said etched side; and

a conductive tip portion formed on a second edge portion of said cantilever conductive spring unit.

Claim 2 (Previously presented): The microprobe of claim 1, wherein said cantilever conductive spring unit is made of a material being selected from the group consisting of copper, nickel, nickel-tungsten, nickel-chromium, tungsten, a plating alloy, and any combinations thereof.

Claim 3 (Previously presented): The microprobe of claim 1, wherein said conductive tip portion is made of a material being selected from the group consisting of copper, nickel, nickel-tungsten, nickel-chromium, tungsten, a plating alloy, and any combinations thereof.

Claim 4 (Previously presented): The microprobe of claim 1, further comprising a seed layer formed between said cantilever conductive spring unit and said conductive layer, said seed layer being electrically connected to said conductive layer, wherein said seed layer has a first edge portion that is supported on a surface adjacent to said hole and a remainder of said seed unit is spaced from said etched side.

Claim 5 (Previously presented): The microprobe of claim 4, wherein said seed layer is made of a material being selected from the group consisting of titanium-gold, titanium-copper, chromium-gold, chromium-copper, and any combinations thereof.

Claim 6 (Withdrawn): A method of manufacturing athe microprobe ~~for testing an electronic device of claim 1~~, comprising the steps of:

forming a hole in a portion of a silicon substrate;

forming a first conductive layer in said hole;

forming an opening on a portion of a surface of said silicon substrate;

forming a seed layer on an exposed portion of said silicon substrate in said opening and said first conductive layer of said hole;

forming a pattern of a conductive spring unit on said seed layer overlapping said hole and said opening;

forming a conductive tip portion on a leading end of said conductive spring unit;

etching said seed layer that is not covered with said conductive spring unit; and

etching said silicon substrate under said conductive spring unit.

Claim 7 (Withdrawn): The method of claim 6, wherein the step of forming said pattern of said conductive spring unit comprises:

forming a first pattern of a photoresist having a window overlapping all of said hole and said opening; and

forming a second pattern of a second conductive layer for said conductive spring unit, said second pattern being only in said window.

Claim 8 (Withdrawn): The method of claim 7, wherein said conductive spring unit is formed by a plating method.

Claim 9 (Withdrawn): The method of claim 8, wherein said conductive spring unit is made from a material being selected from the group consisting of copper, nickel, nickel-tungsten, nickel-chromium, tungsten a plating alloy, and any combinations thereof.

Claim 10 (Withdrawn): The method of claim 6, wherein the step of forming said conductive tip portion comprises:

forming a pattern of a photoresist having a window exposing a leading end of said conductive spring unit, said pattern being on said conductive spring unit and said seed layer; and

forming a second pattern of a second conductive layer for said conductive tip portion only in said window of said photoresist.

Claim 11 (Withdrawn): The method of claim 10, wherein said conductive tip portion is formed by a plating method.

Claim 12 (Withdrawn): The method of claim 11, wherein said conductive tip portion is made of a material being selected from the group consisting of copper, nickel, nickel-tungsten, nickel-chromium, tungsten, a plating alloy, and any combinations thereof.

Claim 13 (Withdrawn): The method of claim 6, wherein said silicon substrate under said conductive spring unit is isotropically etched.

Claim 14 (Withdrawn): The method of claim 13, wherein said silicon substrate is isotropically wet-etched using an etching solution being selected from the group consisting of tetramethylammonium hydroxide (TMAH), KOH, ethyl diamine pyrocatechol (EDP), and any combinations thereof.

Claim 15 (Withdrawn): The method of claim 13, wherein said silicon substrate is dry-etched by a reactive ion etching and an inductively coupled plasma etching.

Claim 16 (Withdrawn): The method of claim 6, wherein the step of forming the first conductive layer comprises:

putting said silicon substrate having said hole into an electrolyte for said first conductive layer;

filling said hole with said electrolyte by applying a desired amount of pressure to a surface of said electrolyte; and

leaving said first conductive layer only in said hole by pulling out said silicon substrate from said electrolyte and polishing said silicon substrate.

Claim 17 (Withdrawn) The method of claim 16, wherein said electrolyte is selected from the group consisting of an electrolyte having lead, an electrolyte having tin, an electrolyte with solder, and any combinations thereof.